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United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Washington Basin Outlook Report March 1, 1995



Basin Outlook Reports

and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Local Natural Resources Conservation Service Field Office

or

Scott Pattee

Acting Water Supply Specialist

Natural Resources Conservation Service

W. 316 Boone Ave., Suite 450

Spokane, WA 99201-2348

(509) 353-2341

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points.

Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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Washington Water Supply Outlook

MARCH 1995

General Outlook

On average, February temperatures were 3 to 4 degrees above normal across the state. Sporadic and isolated storms brought a variation of much above to much below average precipitation at selected stations. However basin averages indicate near normal precipitation throughout the state. Very little snow accumulated in February. March 1 puts us past the halfway mark for annual snow accumulation which means that April will be a very critical month to build on the current snowpack and keep our averages up.

Snowpack

The March 1 statewide SNOTEL reading showed that the snowpack is 112% of average, down from the February 1 reading of 135%. The good news is that the snowpack remains near or above average for most of the State. However, Northeast Washington and Northern Idaho are taking a hit with the warmer weather causing extensive mid-elevation meltout, bringing the Spokane-Pend Oreille River Basins to below average with only 82% of normal snowpack. The east slope of the Cascade Mountains remains strong with high averages of 144% along the Entiat River, 132% on the Methow, 116% of average for Chelan Lake Basin and the Wenatchee at 121% of normal. The Yakima River Basin is also holding its own at 113% of average, down 40% from last month. Westside averages vary greatly with a high of 119% of average on the White River Basin to as low as 56% of average in the lower elevations of the Cedar River. Snow measurement points within the Olympic Mountain River Basins reported 60% on the Elwha River, 97% for Morse Creek, 65% for the Dungeness and the Quilcene at 107% of average. High average in the state was at Salmon Meadows SNOTEL near Conconully with 163% normal snowpack. Low average is at the Cougar Mountain SNOTEL near Howard Hanson Reservoir, with 54% of normal.

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane.....	112.....	82
Colville.....	80.....	81
Pend Oreille.....	112.....	81
Okanogan.....	122.....	105
Methow.....	146.....	132
Wenatchee.....	137.....	121
Chelan.....	154.....	116
Yakima.....	131.....	113
Walla Walla.....	107.....	99
Cowlitz.....	116.....	102
Lewis.....	105.....	99
White.....	144.....	119
Green.....	121.....	85
North Puget Sound.....	126.....	97
Olympic Peninsula.....	106.....	82

Precipitation

February precipitation reports from National Weather Service stations showed most of Washington to be near normal. Isolated areas within the Olympic and Okanogan River Basins acquired above normal precipitation while the Yakima and Colville areas were slightly below normal. Accumulated precipitation from October 1, 1994 is above average for most of Eastern Washington. The greater part of the Westside is closer to normal. Year-to-date precipitation ranges from 145% of normal in the Wenatchee-Chelan River Basins, to 105% in the Olympic Peninsula River Basins. Basin reports indicated average to slightly above average February precipitation across the state. SNOTEL sites in Washington showed high elevation water year precipitation values to be 132% of average. Maximum reportable precipitation was again at the June Lake SNOTEL site near Mount St. Helens, with 146 inches since October 1. This puts June Lake at 144% of normal February accumulation and 146% of average for the year.

BASIN	FEBRUARY PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane.....	102.....	110
Colville-Pend Oreille.....	90.....	113
Okanogan-Methow.....	97.....	124
Wenatchee-Chelan.....	137.....	145
Yakima.....	99.....	128
Walla Walla.....	103.....	122
Cowlitz-Lewis.....	102.....	125
White-Green-Cedar.....	95.....	113
North Puget Sound.....	115.....	114
Olympic Peninsula.....	99.....	105

Reservoir

With the warmer than normal temperatures and early runoff throughout much of February, average reservoir storage in Washington appears good, but we still have a long way to go to fill most reservoirs. Reservoir storage in the Yakima Basin was 572,200 acre feet, 82% of normal. Storage at other reservoirs included Roosevelt and Banks at 99% of average, and the Okanogan reservoirs, 100% of normal for March 1. The power generation reservoirs include the following: Coeur d'Alene Lake, 348,500 acre feet, or 234% of normal; Chelan Lake, 231,700 acre feet, 138% of average and 34% of capacity, and Ross Lake at 264% of average and 58% of capacity.

BASIN	PERCENT OF CAPACITY	PERCENT OF AVERAGE
Spokane.....	146.....	234
Colville-Pend Oreille.....	56.....	99
Okanogan-Methow.....	60.....	100
Wenatchee-Chelan.....	34.....	138
Yakima.....	54.....	82
North Puget Sound.....	58.....	264

For more information contact your local Natural Resources Conservation Service office.

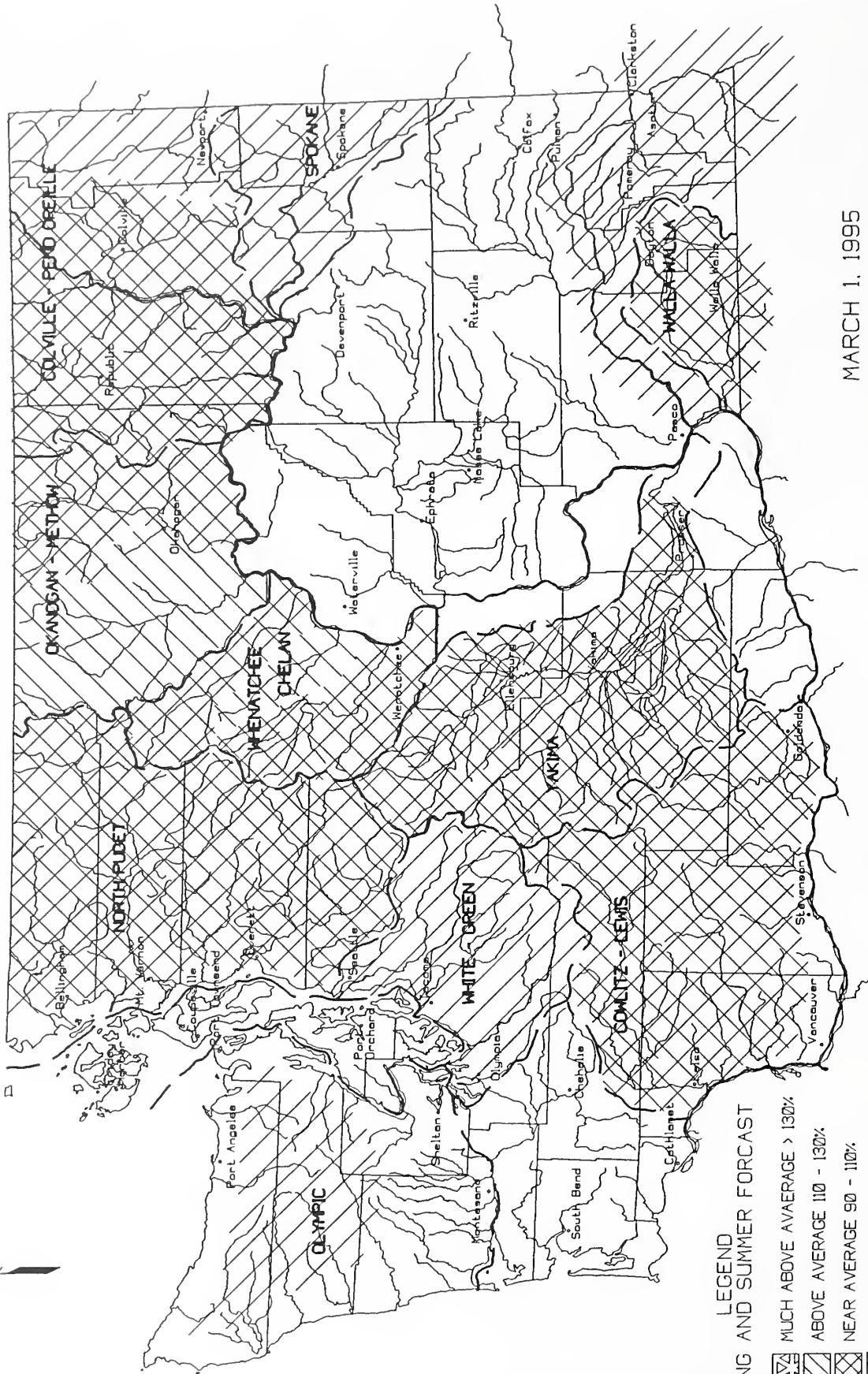
Streamflow

For the most part forecasts for summer streamflows are for below to near average with only a few going above or much below normal. They vary from 125% of average for Salmon Creek near Conconully to a low of 65% of normal for the Grande Ronde River at Troy. March forecasts for some Western Washington streams include: Cedar River at Cedar Falls, 85%; Green River, 78%; and the Dungeness River, 90%, all down slightly from last month. Some Eastern Washington streams include Mill Creek at Walla Walla, 104%; the Wenatchee River at Peshastin, 98%; and the Colville River, 100%. February streamflows were very high throughout the state. Flood warnings were posted for much of Western Washington and part of Eastern Washington throughout the month with minor flooding in Southwestern Washington, the Yakima River Basin, and Northern Idaho. The Naches River at Naches had the highest February flows with 309% of average, and the Methow at Pateros with 82% of normal was the lowest in the state. Other streamflows were the following percentage of normal: the Cowlitz River, 172%; the Okanogan River, 141%; the Spokane River, 220%; the Columbia at the Canadian border, 112%, the Skagit near Concrete, 190% and the Yakima River at Kiona, 228%.

BASIN

PERCENT OF AVERAGE MOST PROBABLE FORECAST (50 PERCENT CHANCE OF EXCEEDANCE)

Spokane.....	81-83
Colville-Pend Oreille.....	73-104
Okanogan-Methow.....	101-125
Wenatchee-Chelan.....	101-117
Yakima.....	100-109
Walla Walla.....	65-104
Cowlitz-Lewis.....	97-108
White-Green-Cedar.....	78-87
North Puget Sound.....	98-111
Olympic Peninsula.....	88-90



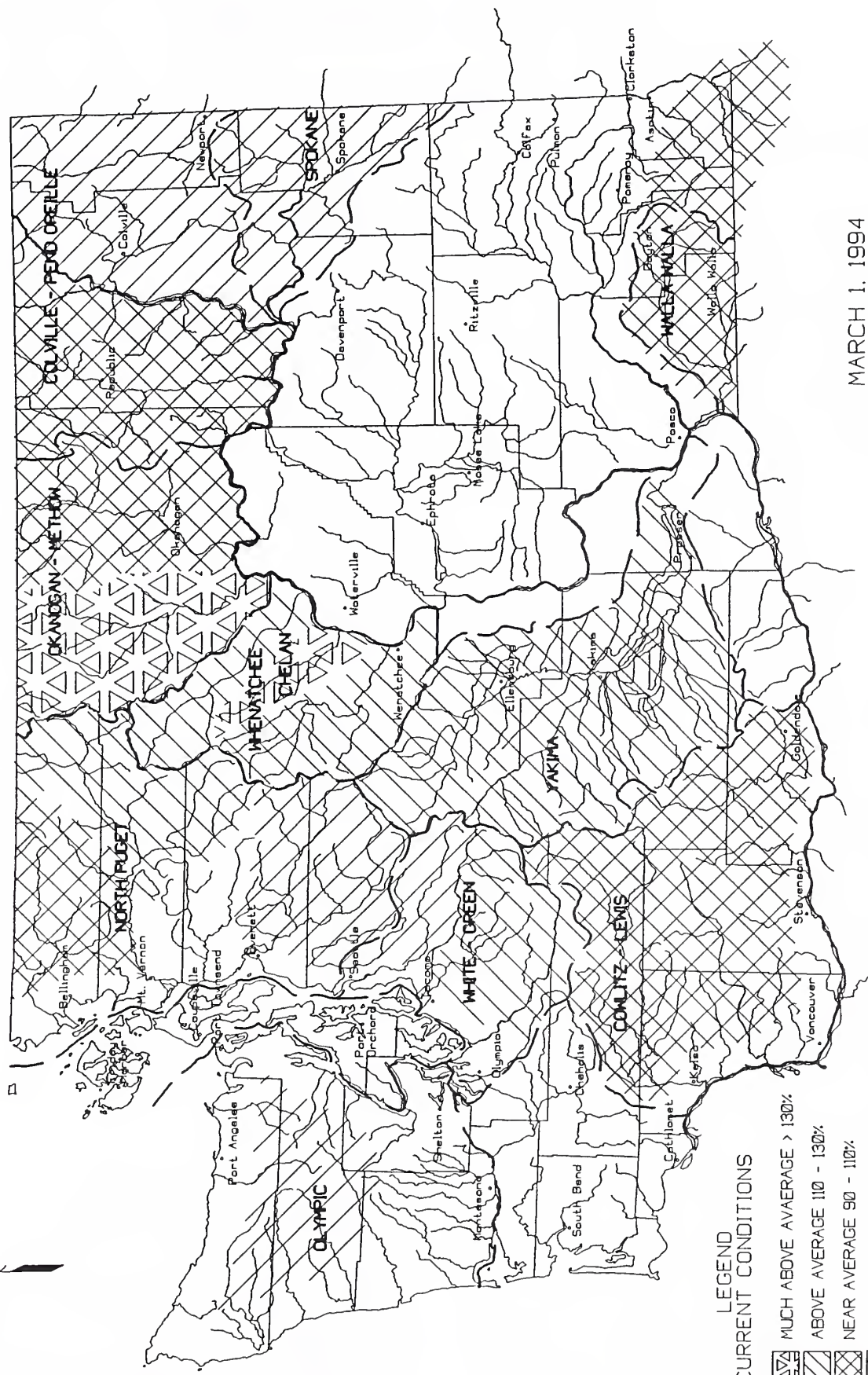
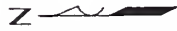
LEGEND
SPRING AND SUMMER FORECAST

- MUCH ABOVE AVERAGE > 130%
- ABOVE AVERAGE 110 - 130%
- NEAR AVERAGE 90 - 110%
- BELOW AVERAGE 70 - 90%
- MUCH BELOW AVERAGE < 70%
- NOT FORECAST
- WATERSHED BOUNDARY








MARCH 1, 1995

STREAMFLOW PROSPECTS
WASHINGTON

NTS



LEGEND
CURRENT CONDITIONS

-  MUCH ABOVE AVERAGE > 130%
-  ABOVE AVERAGE 110 - 130%
-  NEAR AVERAGE 90 - 110%
-  BELOW AVERAGE 70 - 90%
-  MUCH BELOW AVERAGE < 70%
-  NOT FORCASTED
-  WATERSHED BOUNDARY

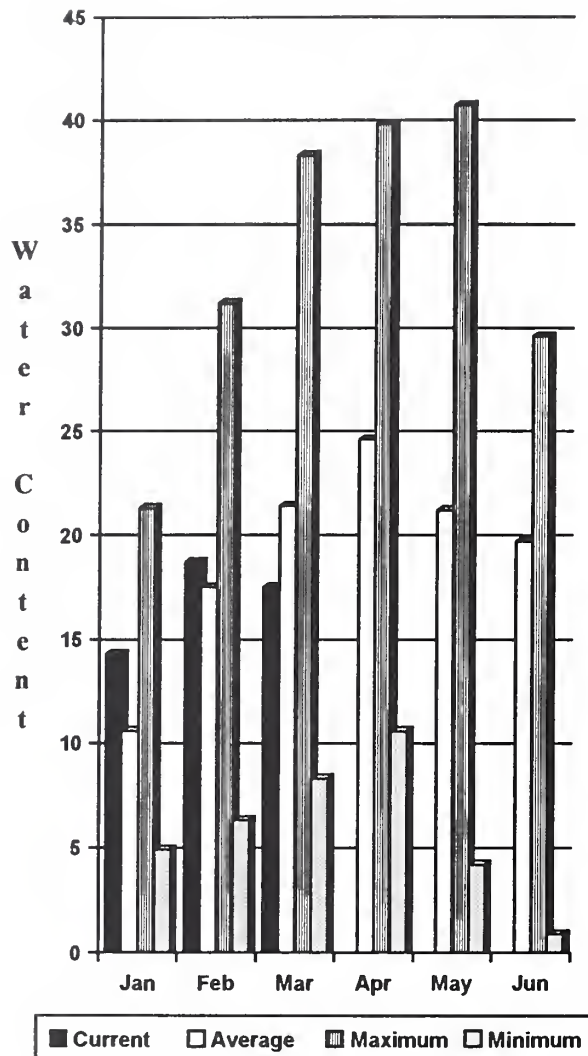
MARCH 1, 1994
MOUNTAIN SNOWPACK
WASHINGTON
NTS

BASIN SUMMARY OF SNOW COURSE DATA

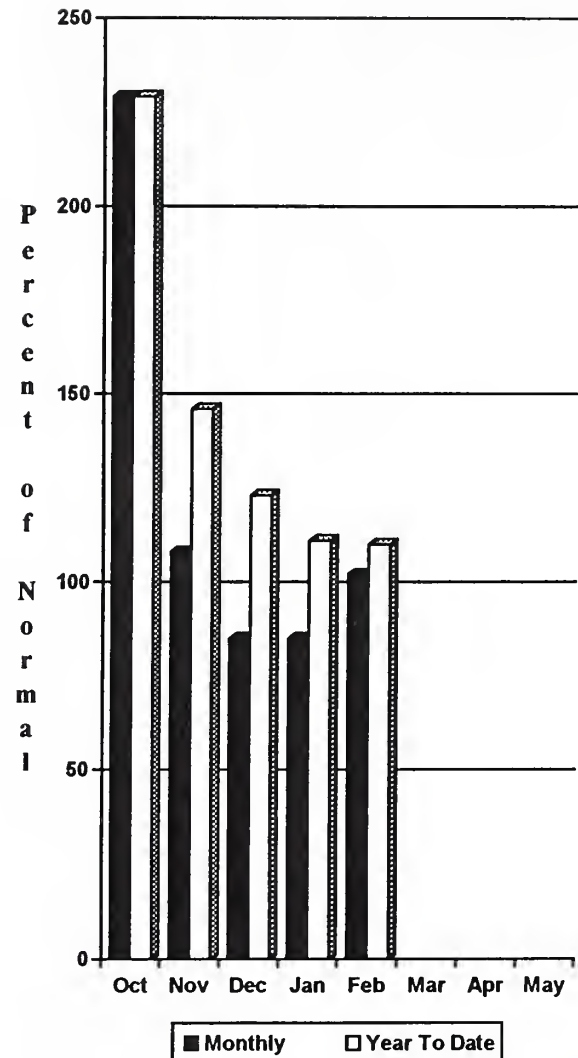
MARCH 1995

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
PEND OREILLE RIVER							WENATCHEE RIVER						
BENTON MEADOW	2370	3/01/95	8	3.0	4.9	5.9	BERNE-MILL CREEK (d)	3170	2/27/95	77	28.8	22.7	24.7
BENTON SPRING	4920	3/01/95	39	14.9	13.0	16.7	BLEWETT PASS#2PILLOW	4270	3/01/95	---	19.2S	13.2	17.0
BOYER MOUNTAIN	5250	2/27/95	64	23.6	16.4	21.6	CHIWAUKUM G.S.	2500	2/27/95	45	14.2	9.6	10.7
BUNCHGRASS MDWPILLOW	5000	3/01/95	---	26.9	21.3	22.7	FISH LAKE PILLOW	3370	3/01/95	---	34.4S	29.7	28.4
HOODOO BASIN	6050	3/01/95	---	38.8E	26.3	42.7	LYMAN LAKE	5900	2/22/95	140	58.5	--	49.8
HOODOO CREEK	5900	3/01/95	---	34.2E	21.6	39.2	LYMAN LAKE PILLOW	5900	3/01/95	---	64.1S	39.9	48.4
LOOKOUT	5140	3/01/95	---	22.5	18.4	28.0	MERRITT	2140	2/27/95	47	16.4	9.9	14.4
NELSON	3100	2/27/95	44	15.0	15.7	14.3	MISSION RIDGE	5000	2/27/95	53	19.0	13.8	14.0
KETTLE RIVER							STEVENS PASS PILLOW	4070	3/01/95	---	41.3S	32.0	34.7
BARNES CREEK CAN.	5300	2/28/95	44	14.9	19.8	17.2	STEVENS PASS SAND SD	3700	2/27/95	74	30.9	24.8	31.1
BIG WHITE MTN CAN.	5510	2/26/95	57	19.8	16.2	16.3	TROUGH #2 PILLOW	5310	3/01/95	---	12.1S	8.7	9.0
BUTTE CREEK	4070	3/01/95	---	8.6E	15.3	8.2	UPPER WHEELER	4400	2/28/95	24	7.0	7.1	9.4
CARMI CAN.	4100	2/26/95	20	4.7	6.5	6.1	UPPER WHEELER PILLOW	4400	3/01/95	---	15.5S	10.0	12.1
FARRON CAN.	4000	2/24/95	35	12.0	10.9	12.4	SQUILCHUCK CREEK						
GOAT CREEK	3600	2/28/95	16	4.7	5.9	6.4	STEMILT CREEK						
MONASHEE PASS CAN.	4500	2/28/95	33	10.7	11.9	12.2	STEMILT SLIDE	5000	2/28/95	39	15.0	11.0	12.7
SUMMIT G.S.	4600	2/28/95	26	7.8	6.8	7.1	UPPER WHEELER	4400	2/28/95	24	7.0	7.1	9.4
TRAPPING CK LOW CAN.	3050	2/25/95	16	4.9	4.8	5.1	UPPER WHEELER PILLOW	4400	3/01/95	---	15.5S	10.0	12.1
TRAPPING CK UP CAN.	4460	2/25/95	21	6.7	7.6	9.1	COLOCKUM CREEK						
COLVILLE RIVER							TROUGH #2 PILLOW	5310	3/01/95	---	12.1S	8.7	9.0
BAIRD #2	3220	2/27/95	29	8.7	7.6	--	YAKIMA RIVER						
CHEWALAH #2	4930	2/27/95	48	17.6	--	--	BLEWETT PASS#2PILLOW	4270	3/01/95	---	19.2S	13.2	17.0
TOGO	3370	3/01/95	---	7.5E	9.4	9.3	BUMPING LAKE (NEW)	3400	2/27/95	44	16.1	15.3	17.6
OMAK LAKE, TWIN LAKES							BUMPING RIDGE PILLOW	4600	3/01/95	---	23.9S	20.3	18.4
MOSES MOUNTAIN (1)	4800	2/21/95	48	16.0	14.1	14.4	CAYUSE PASS	5300	3/01/95	---	67.3E	53.5	65.3
MOSES MTN PILLOW	4800	3/01/95	---	14.3S	9.0	11.7	CORRAL PASS PILLOW	6000	3/01/95	---	30.1S	21.9	27.6
MOSES MEADOWS (3)	3800	2/21/95	0	.0	2.8	2.4	FISH LAKE	3370	3/01/95	84	34.1	27.2	29.3
MOSES PEAK (2)	6650	2/21/95	54	19.1	10.7	10.3	FISH LAKE PILLOW	3370	3/01/95	---	34.4S	29.7	28.4
MOUNT TOLMAN	2000	2/23/95	0	.0	2.6	3.5	GREEN LAKE	6000	3/01/95	---	37.7E	28.4	29.1
TWIN LAKES	2700	2/22/95	24	6.7	7.2	8.7	GREEN LAKE PILLOW	6000	3/01/95	---	22.7S	17.1	17.5
SPOKANE RIVER							GROUSE CAMP PILLOW	5380	3/01/95	---	23.1S	16.1	17.1
FOURTH OF JULY SUM	3200	2/23/95	7	2.5	5.2	8.4	DOMMERIE FLATS	2200	2/28/95	19	7.2	4.1	7.7
LOST LAKE (d)	6110	3/01/95	---	38.6E	29.1	47.2	LOST HORSE PILLOW	5000	3/01/95	---	17.1S	14.7	25.6
MOSQUITO RDG PILLOW	5200	3/01/95	---	28.2	21.6	32.2	MORSE LAKE PILLOW	5400	3/01/95	---	59.3S	33.3	38.5
SUNSET	5540	2/23/95	34	13.6	16.6	30.8	OLALLIE MDWS PILLOW	3960	3/01/95	---	39.5S	37.6	44.6
SUNSET PILLOW	5540	3/01/95	---	17.0	19.4	32.0	OLALLIE MEADOWS	3630	2/27/95	54	24.7	25.0	38.7
LOOKOUT PILLOW	5140	3/01/95	---	22.5	18.4	28.0	SASSE RIDGE PILLOW	4200	3/01/95	---	35.9S	26.6	27.4
NEWMAN LAKE							STAMPEDE PASS PILLOW	3860	3/01/95	---	48.5S	34.4	38.2
QUARTZ PEAK PILLOW	4700	3/01/95	---	22.8	17.2	18.6	TUNNEL AVENUE	2450	2/28/95	56	23.3	13.8	19.2
RAGGED RIDGE	3330	2/28/95	15	6.2	7.2	7.4	WHITE PASS ES PILLOW	4500	3/01/95	---	22.5S	18.5	20.7
OKANOGAN RIVER							AHTANUM CREEK						
ABERDEEN LAKE CAN.	4300	2/28/95	16	4.2	5.8	5.9	GREEN LAKE	6000	3/01/95	---	37.7E	28.4	29.1
BRENDA MINE CAN.	4800	2/23/95	36	11.2	7.5	11.9	GREEN LAKE PILLOW	6000	3/01/95	---	22.7S	17.1	17.5
BROOKMERE CAN.	3200	2/26/95	27	7.3	4.3	8.0	LOST HORSE PILLOW	5000	3/01/95	---	17.1S	14.7	25.6
ENDERBY CAN.	6200	2/28/95	85	30.7	37.0	32.6	MILL CREEK						
ESPERON CK. UP CAN.	5410	2/25/95	48	15.8	13.2	15.7	HIGH RIDGE PILLOW	4980	3/01/95	---	22.0S	21.9	21.6
FREEZEOUT CK. TRAIL	3500	2/26/95	33	10.8	6.6	11.1	TOUCHET #2 PILLOW	5530	3/01/95	---	27.1	23.8	27.8
GREYBACK RES CAN.	5120	2/28/95	30	8.5	8.7	7.8	LEWIS - COWLITZ RIVERS						
HAMILTON HILL CAN.	4890	2/26/95	33	10.9	9.2	13.7	CAYUSE PASS	5300	3/01/95	---	67.3E	53.5	65.3
HARTS PASS	6500	2/27/95	114	40.0	26.3	36.2	JUNE LAKE PILLOW	3200	3/01/95	---	32.3S	26.0	33.6
HARTS PASS PILLOW	6500	3/01/95	---	44.0S	26.4	34.6	LONE PINE PILLOW	3800	3/01/95	---	27.1S	27.8	28.1
ISINTOK LAKE CAN.	5500	2/28/95	24	6.4	4.5	6.8	PARADISE PARK PILLOW	5500	3/01/95	---	61.7S	46.4	47.9
LIGHTNING LAKE CAN.	4000	2/25/95	34	10.9	5.3	11.9	PIGTAIL PEAK PILLOW	5900	3/01/95	---	42.0S	31.9	41.0
LOST HORSE MTN CAN.	6300	3/01/95	29	8.3	4.3	8.1	POTATO HILL PILLOW	4500	3/01/95	---	20.4S	20.5	21.9
MCCULLOCH CAN.	4200	2/27/95	23	6.5	7.0	6.4	SHEEP CANYON PILLOW	4050	3/01/95	---	20.7S	25.8	30.1
MISSEZULA MTN CAN.	5090	2/26/95	32	10.5	6.2	9.0	SPENCER MDW PILLOW	3400	3/01/95	---	26.3S	28.8	27.2
MONASHEE PASS CAN.	4500	2/28/95	33	10.7	11.9	12.2	SPIRIT LAKE PILLOW	3100	3/01/95	---	3.3S	7.8	6.6
MT. KOBAY CAN.	5900	2/26/95	41	12.4	8.7	10.7	SURPRISE LKS PILLOW	4250	3/01/95	---	39.2S	36.7	37.5
MUTTON CREEK #1	5700	2/27/95	44	14.1	12.8	11.4	WHITE PASS ES PILLOW	4500	3/01/95	---	22.5S	18.5	20.7
OYAMA LAKE CAN.	4400	2/27/95	24	7.0	6.6	6.1	WHITE RIVER						
POSTILL LAKE CAN.	4500	2/28/95	27	8.3	8.7	7.4	CAYUSE PASS	5300	3/01/95	---	67.3E	53.5	65.3
RUSTY CREEK	4000	2/27/95	26	8.2	5.8	6.2	CORRAL PASS	6000	3/01/95	---	37.0E	27.1	33.9
SALMON MDWS PILLOW	4500	3/01/95	---	13.5S	9.6	8.3	CORRAL PASS PILLOW	6000	3/01/95	---	30.1S	21.9	27.6
SILVER STAR MTN CAN.	6000	2/25/95	72	26.5	25.4	24.3	MORSE LAKE PILLOW	5400	3/01/95	---	59.3S	33.3	38.5
SUMMERLAND RES CAN.	4200	2/27/95	29	9.1	5.9	8.7	GREEN RIVER						
SUNDAY SUMMIT CAN.	4300	2/25/95	14	3.9	3.4	5.5	COUGAR MTN. PILLOW	3200	3/01/95	---	9.7S	10.2	18.6
TROUT CREEK CAN.	4690	2/27/95	22	6.3	4.8	6.7	GRASS MOUNTAIN #2	2900	2/27/95	0	.0	.0	13.9
VASEUX CREEK CAN.	4600	2/27/95	19	6.2	5.7	5.9	LESTER CREEK	3100	2/27/95	46	17.9	16.0	17.7
WHITE ROCKS MTN CAN.	6000	3/03/95	59	21.6	17.4	20.0	LYNN LAKE	4000	2/27/95	21	9.6	9.2	16.0
METHOW RIVER							SAWMILL RIDGE	4700	2/27/95	69	29.5	18.5	29.7
HARTS PASS	6500	2/27/95	114	40.0	26.3	36.2	STAMPEDE PASS PILLOW	3860	3/01/95	---	48.5S	34.4	38.2
HARTS PASS PILLOW	6500	3/01/95	---	44.0S	26.4	34.6	TWIN CAMP	4100	2/27/95	44	17.8	21.7	21.8
MUTTON CREEK #1	5700	2/27/95	44	14.1	12.8	11.4	CEDAR RIVER						
RUSTY CREEK	4000	2/27/95	26	8.2	5.8	6.2	CITY CABIN	2390	3/01/95	---	9.8E	6.4	12.3
SALMON MDWS PILLOW	4500	3/01/95	---	13.5S	9.6	8.3	MT. GARDNER	3300	3/01/95	11	5.0	12.9	14.2
CHELAN LAKE BASIN							MT. GARDNER PILLOW	2860	3/01/95	---	9.3S	12.9	14.2
CLOUDY PASS AM	6500	2/22/95	122	51.2	--	32.9	TINKHAM CREEK PILLOW	3000	3/01/95	---	24.3S	23.1	17.2
LYMAN LAKE	5900	2/22/95	140	58.5	--	49.8	MEADOWS PASS PILLOW	3240	3/01/95	---	12.0S	11.3	18.4
LYMAN LAKE PILLOW	5900	3/01/95	---	64.1S	39.9	48.4	SNOQUALMIE RIVER						
LITTLE MDWS AM	5280	2/22/95	100	42.0	--	37.2	ALPINE MEADOWS	3500	2/28/95	69	32.0	27.3	33.8
MINERS RIDGE PILLOW	6200	3/01/95	---	47.7S	35.4	46.9	KROMONA MINE	2400	2/27/95	18	8.8	13.4	29.1
PARK CK RIDGE PILLOW	4600	3/01/95	---	35.4S	23.2	40.6	OLALLIE MDWS PILLOW	3960	3/01/95	---	39.5S	37.6	44.6
RAINY PASS	4780	2/27/95	106	40.0	24.6	33.4	OLALLIE MEADOWS	3630	2/27/95	54	24.7	25.0	38.7
RAINY PASS PILLOW	4780	3/01/95	---	48.6S	29.0	32.7	OLNEY PASS	3250	2/27/95	0	.0	9.7	21.5
ENTIAH RIVER							SKYKOMISH RIVER						
BRIEF	1600	2/27/95	29	10.0	8.0	6.9	STAMPEDE PASS PILLOW	3860	3/01/95	---	48.5S	34.4	38.2
POPE RIDGE PILLOW	3540	3/01/95	---	24.0S	14.9	16.7	STEVENS PASS PILLOW	4070	3/01/95	---	41.3S	32.0	34.7

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The March 1 forecasts for summer runoff on the Spokane River at Long Lake are 83% of normal, down from 103% last month at this time. The forecast is based on a basin snowpack that is 82% of average and precipitation that is 110% of normal for the water year. Precipitation for February was 102% of average. Streamflow on the Spokane River was 220% of average for February. March 1 storage in Coeur d'Alene Lake was 348,500 acre feet, 234% of normal, and 146% of capacity. Temperatures in the basin were 5 degrees above normal during February.

For more information contact your local Natural Resources Conservation Service office.

SPOKANE RIVER BASIN

Streamflow Forecasts - March 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	% AVG.)	30% (1000AF)	10% (1000AF)	

SPOKANE near Post Falls (2)	APR-SEP	1470	1980	2220	81	2460	3000	2730
	APR-JUL	1580	1920	2160	82	2400	2740	2633

SPOKANE at Long Lake	APR-JUL	1820	2190	2441	83	2690	3060	2936
	APR-SEP	1970	2360	2616	83	2880	3260	3159

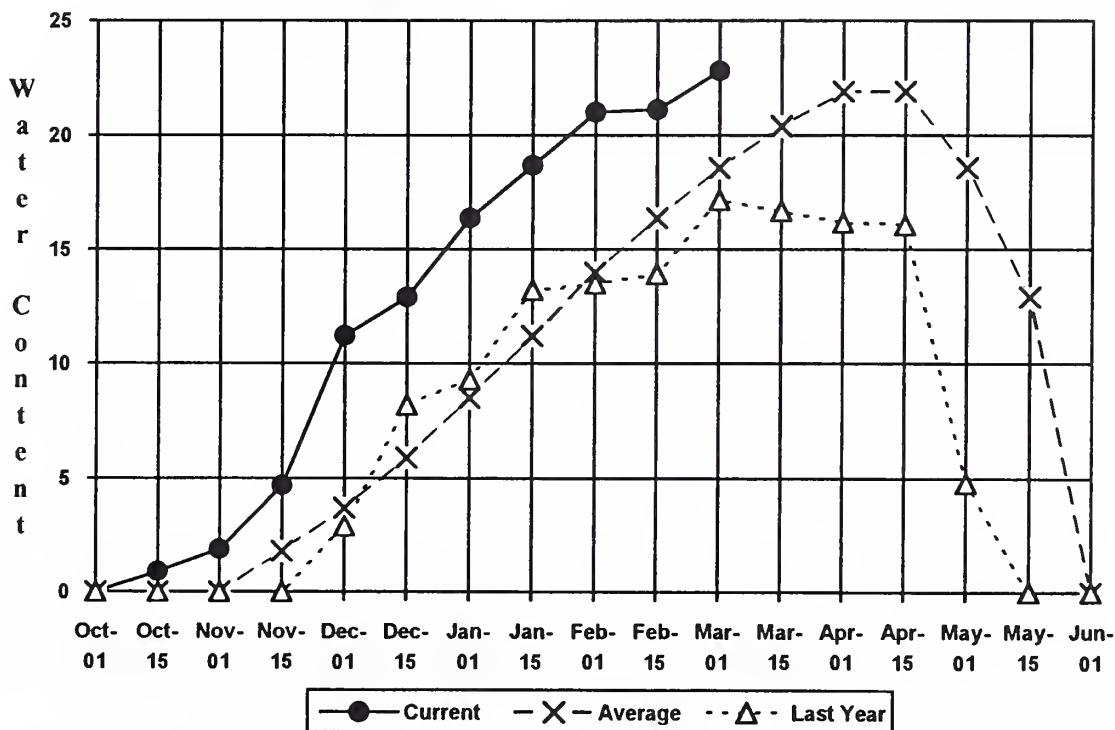
SPOKANE RIVER BASIN Reservoir Storage (1000 AF) - End of February					SPOKANE RIVER BASIN Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
COEUR D'ALENE	238.5	348.5	35.5	149.1	Spokane River	18	112	82

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

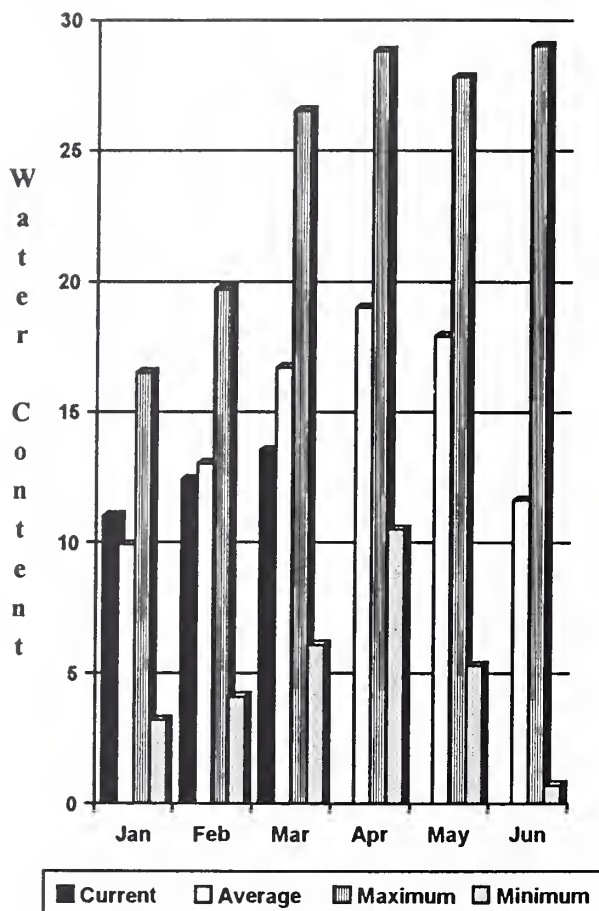
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

Quartz Peak SNOTEL Elevation 4700 ft.

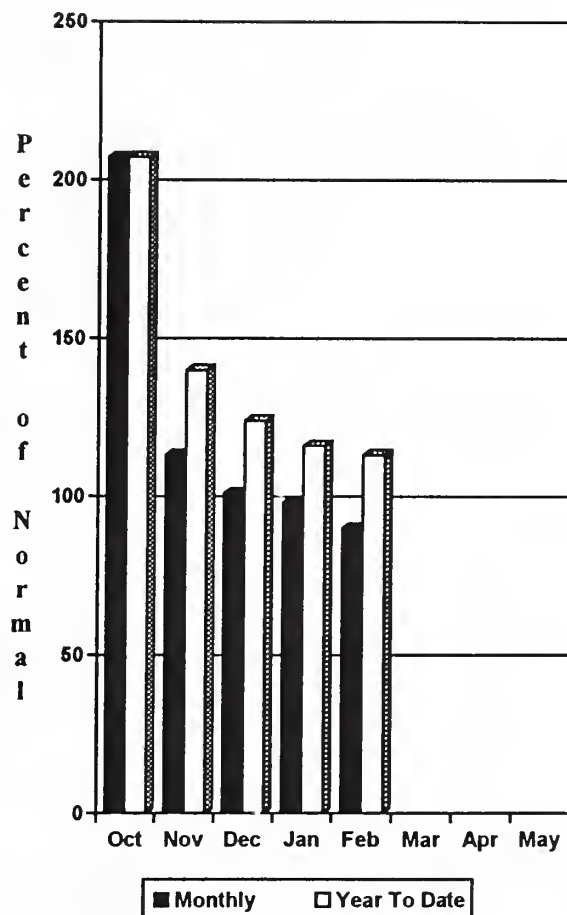


Colville - Pend Oreille River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The forecast for the Kettle River streamflow is for 104% of normal, the Pend Oreille below Box Canyon, 73%, and the Priest River near the town of Priest River, 89% of normal for the summer runoff period. Forecasts for points on the Columbia River, at Birchbank, 95% and at Grand Coulee Dam, 90% of average. February streamflow was 169% of normal on the Pend Oreille River, 112% on the Columbia at the International Boundary, and 128% on the Kettle River. March 1 snow cover was 81% of normal for the Pend Oreille and Colville River Basins and 95% of normal on the Kettle River. Snowpack at Bunchgrass Meadows SNOTEL site contained 26.7 inches of water, compared to the average March 1 reading of 21.6 inches. Precipitation during February was 90% of average, bringing the water year-to-date to 113% of normal, down slightly from last month. Temperatures were 3.5 degrees above normal for February.

For more information contact your local Natural Resources Conservation Service office.

COLVILLE - PEND OREILLE RIVER BASINS

Streamflow Forecasts - March 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	% AVG.)	30% (1000AF)	10% (1000AF)		
PEND OREILLE Lake Inflow (1,2)	APR-JUL	6540	8650	9610	73	10600	12700	13150	
	APR-SEP	6750	9450	10500	73	11600	13500	14370	
	APR-JUN	5400	7390	8300	73	9210	11200	11390	
PRIEST nr Priest River (1,2)	APR-JUL	510	655	725	89	795	940	814	
	APR-SEP	545	705	775	89	845	1000	868	
PEND OREILLE bl Box Canyon (1,2)	APR-JUL	7000	8870	9720	73	10600	12400	13380	
	APR-SEP	7000	9670	10600	73	11500	13600	14590	
	APR-JUN	6110	7720	8450	73	9180	10800	11570	
CHAMOKANE CK nr Long Lake	MAY-AUG	2.7	6.3	8.7	93	11.1	14.7	9.4	
COLVILLE at Kettle Falls	APR-SEP	91	115	131	100	147	171	131	
	APR-JUL	83	105	120	100	135	157	120	
	APR-JUN	78	98	111	100	124	144	111	
KETTLE near Laurier	APR-SEP	1480	1790	1920	104	2050	2320	1854	
	APR-JUL	1540	1710	1824	104	1940	2100	1761	
	APR-JUN	1390	1530	1634	103	1730	1880	1585	
COLUMBIA at Birchbank (1,2)	APR-JUL	28500	31900	33500	95	35100	38500	35140	
	APR-SEP	35000	39800	41800	95	43800	47800	43810	
	APR-JUN	20800	23300	24400	95	25500	28000	25670	
COLUMBIA at Grand Coulee Dm (1,2)	APR-SEP	47300	55000	58200	90	61400	67400	64850	
	APR-JUL	40100	46000	48700	89	51400	57300	54543	
	APR-JUN	31300	36000	38050	89	40100	44800	42756	

COLVILLE - PEND OREILLE RIVER BASINS
Reservoir Storage (1000 AF) - End of February

COLVILLE - PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - March 1, 1995

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ROOSEVELT	5232.0	2730.7	4341.5	2763.0	Colville River	1	80	81
BANKS	715.0	613.3	677.5	606.0	Pend Oreille River	93	112	81
					Kettle River	10	90	95

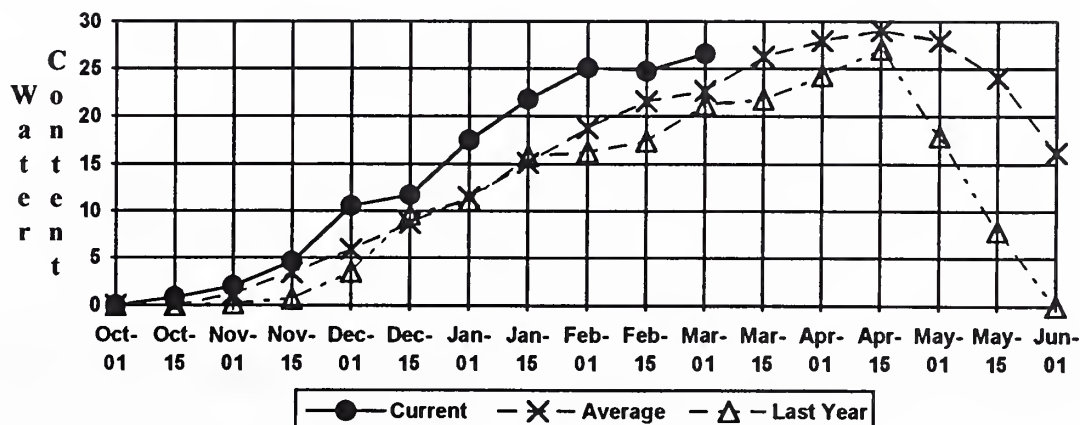
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

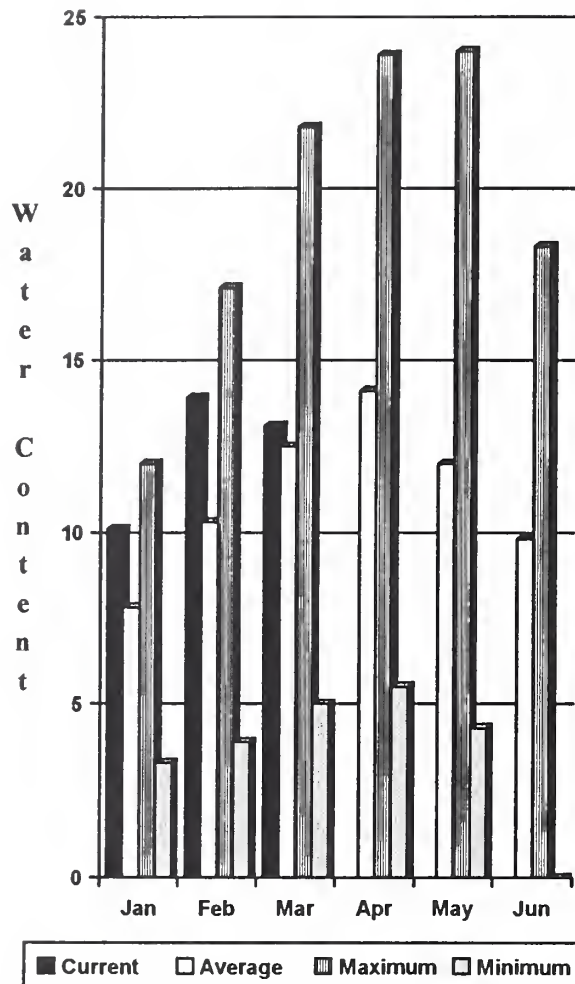
Bunchgrass Meadow SNOTEL

Elevation 5000 ft.

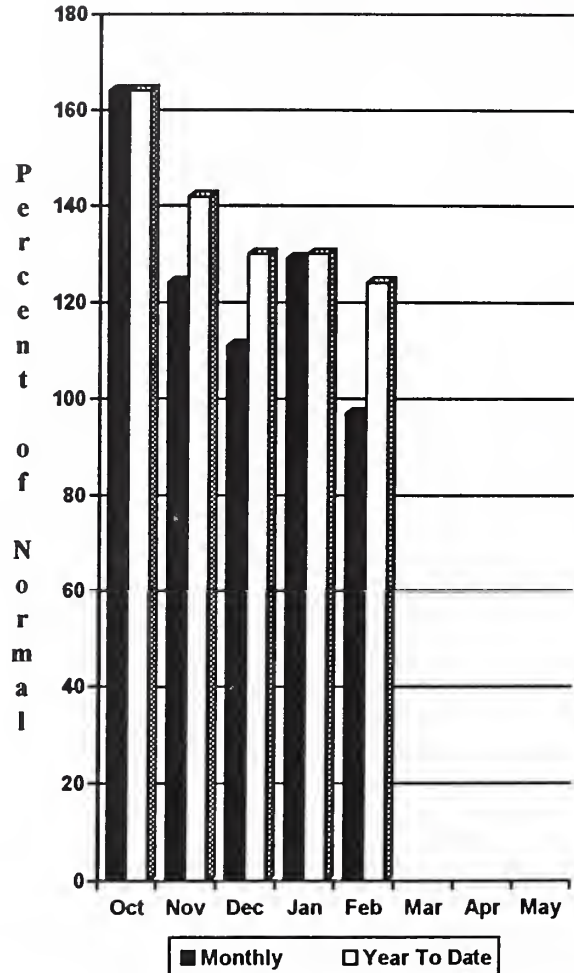


Okanogan - Methow River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Summer runoff forecast for the Okanogan River is 102% of normal; the Similkameen River, 101%, the Methow River, 119%, and Salmon Creek, 125% of normal. March 1 snow cover on the Okanogan was 107% of normal, and the Methow, 132%. February precipitation in the Okanogan-Methow was 97% of normal, with water year-to-date at 124% of average. February streamflow on the Methow River was 82% of normal, 141% on the Okanogan River, and 145% on the Similkameen. Snow water content at the Harts Pass SNOTEL, elevation 6500 feet, was 44.1 inches; normal for this site is 34.8 inches. Temperatures were 3.5 degrees above normal for February. Storage in the Salmon Creek Reservoirs near Conconully was 14,000 acre feet, which is 60% of capacity and 100% of the March 1 average.

For more information contact your local Natural Resources Conservation Service office.

OKANOGAN - METHOW RIVER BASINS

Streamflow Forecasts - March 1, 1995

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SIMILKAMEEN nr Nighthawk (1)	APR-SEP	1010	1310	1410	101	1510	1800	1399
	APR-JUL	1010	1210	1300	100	1390	1590	1304
	APR-JUN	885	1050	1124	101	1200	1360	1113
OKANOGAN RIVER nr Tonasket (1)	APR-SEP	1060	1460	1660	102	1860	2270	1624
	APR-JUL	935	1320	1501	102	1680	2070	1467
	APR-JUN	845	1140	1270	103	1400	1690	1234
SALMON CREEK near Conconully	APR-JUL	11.2	18.8	24	126	29	37	19.1
	APR-SEP	11.7	19.6	25	125	30	38	20
METHOW RIVER near Pateros	APR-SEP	885	1060	1120	119	1180	1360	942
	APR-JUL	940	1010	1065	122	1120	1190	873
	APR-JUN	790	865	918	123	970	1040	746

OKANOGAN - METHOW RIVER BASINS Reservoir Storage (1000 AF) - End of February

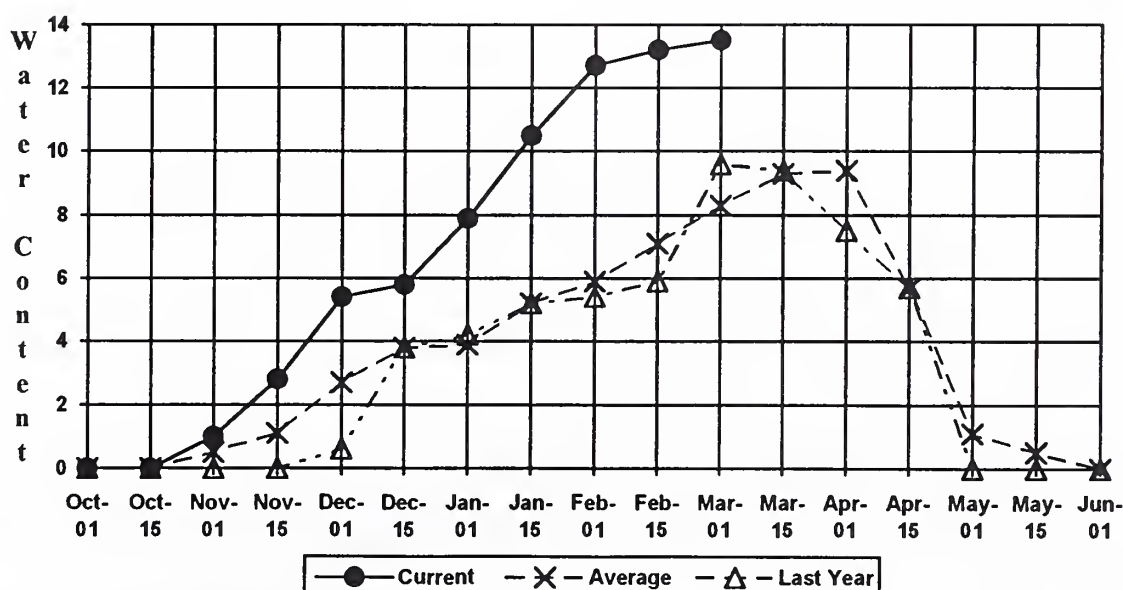
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
SALMON LAKE	10.5	7.3	9.0	8.0	Okanogan River	27	122	105
CONCONULLY RESERVOIR	13.0	6.7	9.3	6.0	Methow River	4	146	132

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

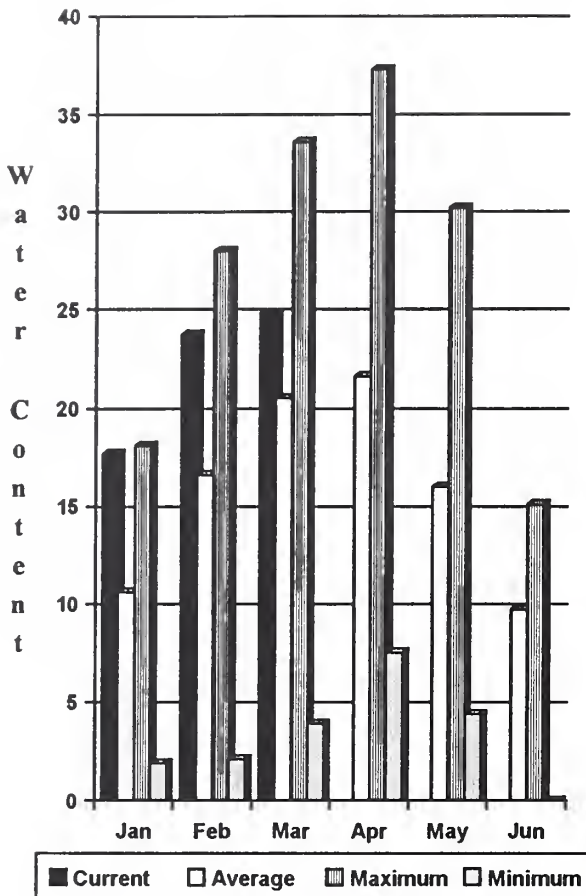
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

Salmon Meadows SNOTEL Elevation 4500 ft.

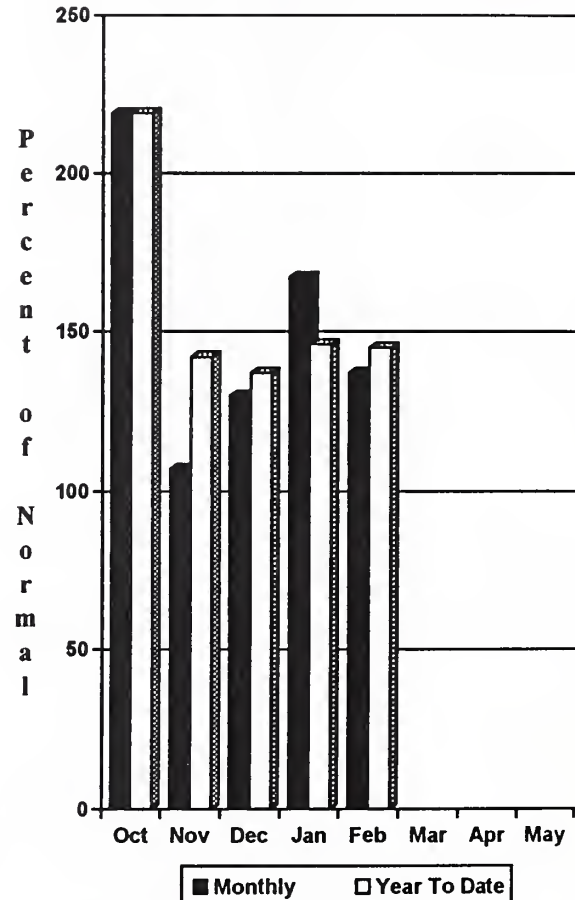


Wenatchee - Chelan River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Precipitation during February was 137% of normal in the basin and 145% for the year to date. Runoff for the Entiat River is forecast to be 117% of normal for the summer. The April-September forecast for the Chelan River is for 109%, near normal for the Wenatchee River, and 102% on the Stehekin. Icicle Creek is forecast to be 108% of normal this summer. Streamflow for February on the Chelan River was 191% of average, and on the Wenatchee River it was 227% of normal. March 1 snowpack in the Wenatchee Basin was 121% of average, which is 137% of last year. The Chelan Basin was 116% of average, and Stemilt Creek at 123% of normal. Snowpack on the Entiat River was at 144% of average. Reservoir storage in Lake Chelan was 231,700 acre feet or 138% of March 1 average and 34% of capacity. Lyman Lake SNOTEL had the most snow water in the basin with 64.2 inches of water. This site would normally have 48.7 inches.

For more information contact your local Natural Resources Conservation Service office.

WENATCHEE - CHELAN RIVER BASINS Streamflow Forecasts - March 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>										
Forecast Point	Forecast Period	90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)		10% (1000AF)		30-Yr Avg. (1000AF)
CHELAN RIVER near Chelan	APR-SEP	1070	1190	1260	109	1330	1450	1160				
	APR-JUL	985	1070	1123	110	1180	1260	1024				
	APR-JUN	765	835	883	109	930	1000	812				
STEHEKIN near STEHEKIN	APR-SEP	730	795	840	102	885	950	827				
	APR-JUL	635	685	722	103	755	805	701				
	APR-JUN	480	520	551	102	580	625	538				
ENTIAT RIVER near Ardenvoir	APR-SEP	235	250	264	117	275	295	227				
	APR-JUL	215	230	242	117	255	270	206				
	APR-JUN	164	178	188	112	198	215	169				
WENATCHEE at Plain	APR-SEP	1040	1140	1200	101	1260	1360	1190				
	APR-JUL	965	1040	1085	101	1130	1210	1072				
	APR-JUN	810	860	897	104	930	985	864				
WENATCHEE R. at Peshastin	APR-SEP	1060	1390	1610	98	1830	2160	1636				
	APR-JUL	970	1260	1450	98	1650	1930	1485				
	APR-JUN	830	1060	1215	101	1370	1600	1204				
STEMILT nr Wenatchee (miners in)	MAY-SEP	100	126	144	104	162	188	138				
ICICLE CREEK nr Leavenworth	APR-SEP	285	355	400	108	450	520	370				
	APR-JUL	260	325	370	109	415	480	340				
	APR-JUN	215	265	300	111	335	385	270				
COLUMBIA R. bl Rock Island Dam (2)	APR-SEP	52500	59400	64000	91	68600	76100	70485				
	APR-JUL	44300	50100	54000	90	57900	63700	59736				
	APR-JUN	34700	39200	42300	90	45400	49900	47007				

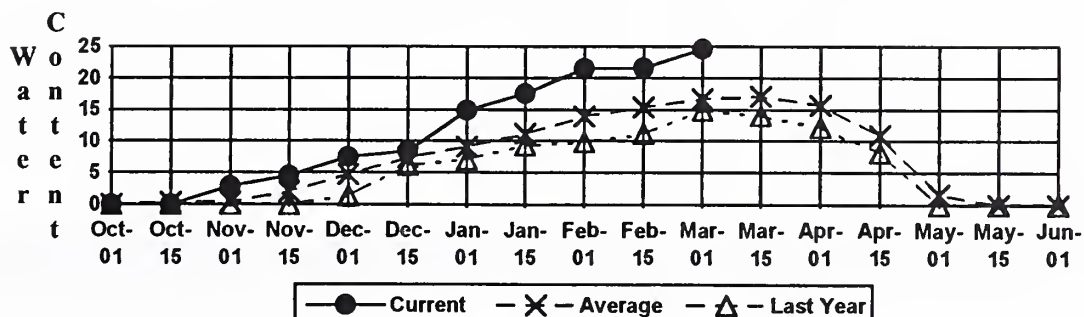
WENATCHEE - CHELAN RIVER BASINS Reservoir Storage (1000 AF) - End of February					WENATCHEE - CHELAN RIVER BASINS Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CHELAN LAKE	676.1	231.7	172.6	168.1	Chelan Lake Basin	4	154	116
					Entiat River	2	148	144
					Wenatchee River	12	137	121
					Squilchuck Creek	0	0	0
					Stemilt Creek	2	145	123
					Colockum Creek	1	139	134

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

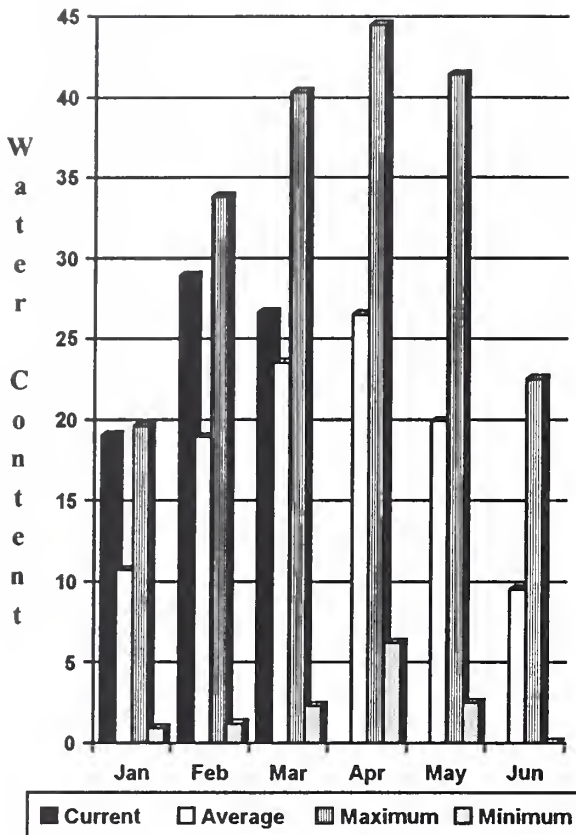
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Pope Ridge SNOTEL Elevation 3540 ft.

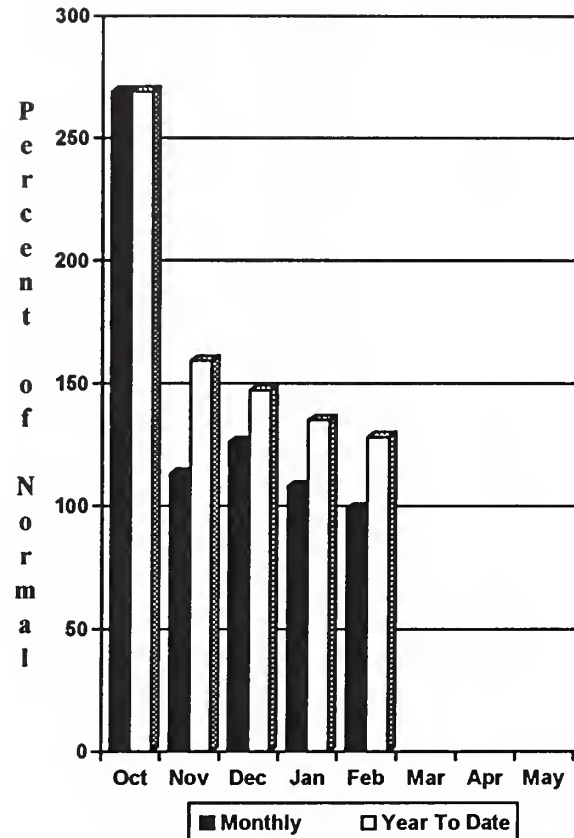


Yakima River Basin

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

March 1 reservoir storage for the five major reservoirs was 572,200 acre feet, 82% of average. March 1 summer streamflow forecasts are for near normal in the Yakima Basin. Forecasts for the Yakima River at Cle Elum are for 101% of normal. Naches River, 104%; the Yakima River at Parker, 104%, Ahtanum Creek, 100%, and the Tieton River, 109%. The Klickitat River near Glenwood is forecast at 108% of normal flows this summer. Early runoff caused drastic increases in February streamflows, with the Yakima River at Parker 278% of normal, 247% for the Yakima near Cle Elum, and 309% for the Naches River. March 1 snowpack was 113% based upon 18 snow course and SNOTEL readings within the Yakima basin. Snow surveys also reported 130% of average snowpack for Ahtanum Creek. February precipitation was 99% of normal and 128% for the water year-to-date. Temperatures were 4 degrees above average for February. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

YAKIMA RIVER BASIN

Streamflow Forecasts - March 1, 1995

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
KEECHELUS LAKE INFLOW	APR-JUL	110	121	129	104	137	149	124
	APR-SEP	122	131	141	104	151	161	135
	APR-JUN	99	108	114	105	120	130	109
KACHESS LAKE INFLOW	APR-JUL	92	103	111	100	118	129	111
	APR-SEP	101	110	118	100	126	135	118
	APR-JUN	83	92	99	100	105	114	99
CLE ELUM LAKE INFLOW	APR-JUL	370	395	409	100	425	450	409
	APR-SEP	395	430	452	101	475	505	448
	APR-JUN	310	330	345	100	360	380	345
YAKIMA at Cle Elum	APR-JUN	650	695	727	101	760	805	721
	APR-JUL	750	805	840	101	875	930	832
	APR-SEP	820	885	925	101	965	1030	915
BUMPING LAKE INFLOW	APR-SEP	112	134	143	105	152	173	136
	APR-JUL	109	122	130	105	139	151	124
	APR-JUN	89	101	109	105	117	129	104
AMERICAN RIVER near Nile	APR-SEP	105	114	120	102	127	136	118
	APR-JUL	96	105	111	102	117	125	109
	APR-JUN	78	87	93	101	99	108	92
RIMROCK LAKE INFLOW	APR-SEP	215	245	260	109	275	305	238
	APR-JUL	195	210	220	110	230	245	200
	APR-JUN	157	169	178	110	187	199	162
NACHES near Naches	APR-SEP	705	815	865	104	915	1020	832
	APR-JUL	675	740	785	104	830	895	755
	APR-JUN	585	640	677	104	715	770	651
AHTANUM CREEK nr Tampico (2)	APR-SEP	28	39	46	100	53	64	46
	APR-JUL	26	35	42	100	49	58	42
	APR-JUN	22	30	36	100	42	50	36
YAKIMA near Parker	APR-SEP	1690	1960	2069	104	2180	2410	1994
	APR-JUL	1640	1780	1875	104	1970	2110	1805
	APR-JUN	1470	1580	1661	104	1740	1850	1597
KLICKITAT near Glenwood	APR-JUN	97	109	118	107	126	138	110
	APR-SEP	122	139	151	108	163	180	140

YAKIMA RIVER BASIN Reservoir Storage (1000 AF) - End of February					YAKIMA RIVER BASIN Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
KEECHELUS	157.8	110.0	44.6	105.0	Yakima River	18	131	113
KACHESS	239.0	110.4	50.3	179.0	Ahtanum Creek	2	133	130
CLE ELUM	436.9	196.6	43.9	273.0				
BUMPING LAKE	33.7	17.2	6.4	10.0				
RIMROCK	198.0	138.0	42.6	130.0				

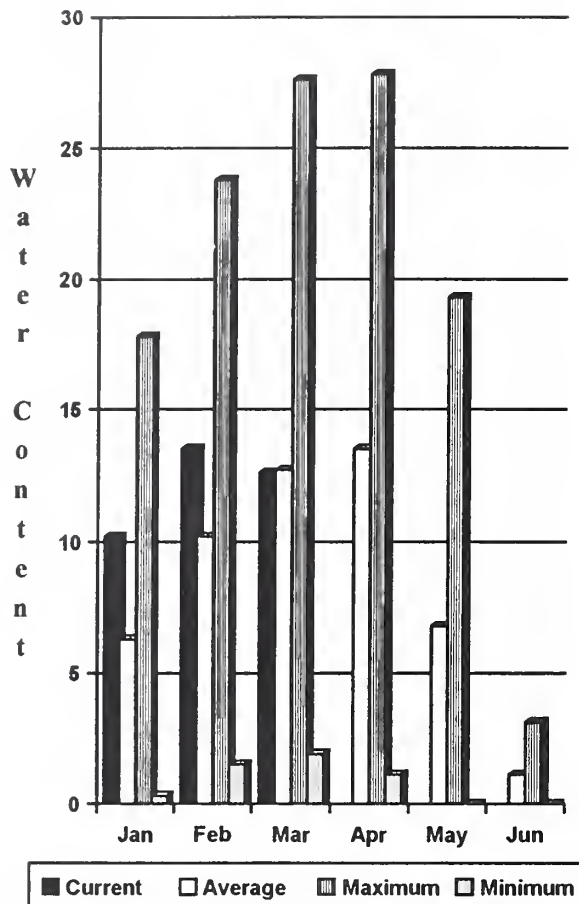
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The average is computed for the 1961-1990 base period.

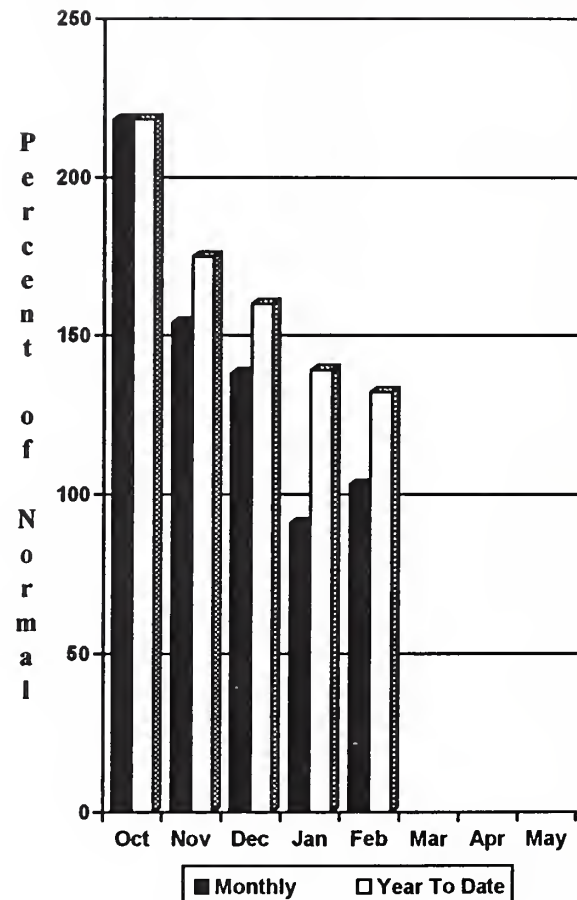
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 (2) - The value is natural flow - actual flow may be affected by upstream water management.

Walla Walla River Basin

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

February precipitation was 103% of average, bringing the year-to-date precipitation to 132% of normal. March 1 snowpack was at 99% of normal. The forecast is for 95% of average streamflow in the Walla Walla River for the coming summer, 65% for the Grande Ronde at Troy, and 104% for Mill Creek. February streamflow was 282% of normal on the Walla Walla River, 127% for the Snake River, and 302% on the Grande Ronde River near Troy. The Touchet SNOTEL site had 27.1 inches of water equivalent, compared to the normal March 1 reading of 28 inches. Temperatures were 3 degrees above average for February.

For more information contact your local Natural Resources Conservation Service office.

WALLA WALLA RIVER BASIN Streamflow Forecasts - March 1, 1995

Forecast Point	Forecast Period	<<----- Drier -----		Future Conditions		----- Wetter ----->>		30-Yr Avg. (1000AF)
		-----		Chance Of Exceeding *		-----		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
GRANDE RONDE at Troy (1)	MAR-JUL	560		1000	68		1440	1471
	APR-SEP	450	725	850	65	975	1250	1312
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	10200	10200	17300	80	19600	24600	21650
	APR-SEP	11400	17000	19600	80	22200	27800	24360
MILL CREEK at Walla Walla	APR-SEP	10.3	14.7	17.7	104	21	25	17.1
	APR-JUL	10.1	14.5	17.5	104	21	25	16.9
	APR-JUN	10.0	14.4	17.3	104	20	25	16.7
SF WALLA WALLA nr Milton Freewater	APR-JUL	41	46	50	95	54	60	53
COLUMBIA R. at The Dalles (2)	APR-SEP	66000	76800	84200	85	91600	102000	98982
	APR-JUL	56100	65400	71700	85	78000	87300	84760
	APR-JUN	46000	53500	58600	85	63700	71200	68925

WALLA WALLA RIVER BASIN Reservoir Storage (1000 AF) - End of February					WALLA WALLA RIVER BASIN Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage This Year	*** Usable Storage Last Year	*** Avg	Watershed	Number of Data Sites	This Year as % of Last Yr Average	
					Mill Creek	2	107	99

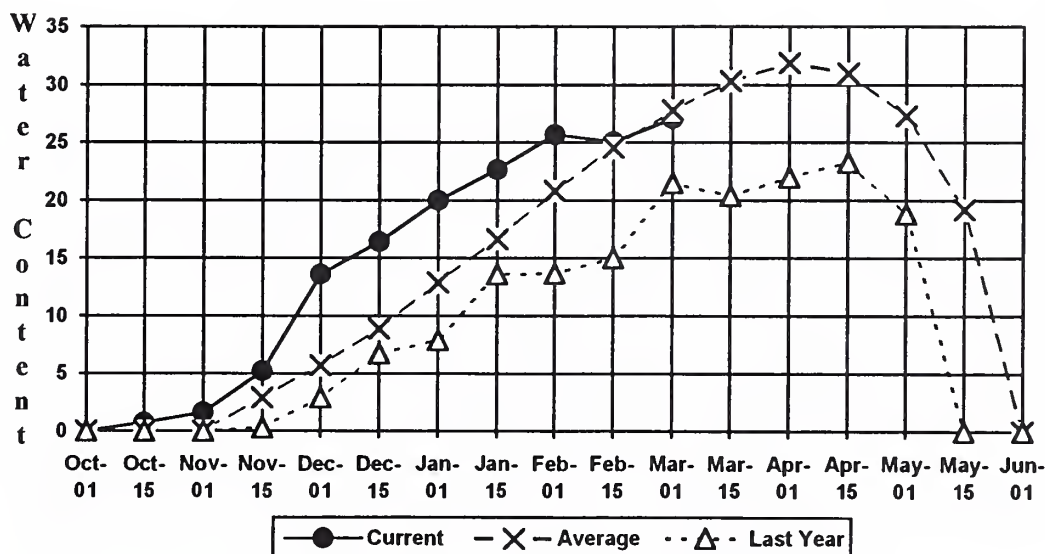
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The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

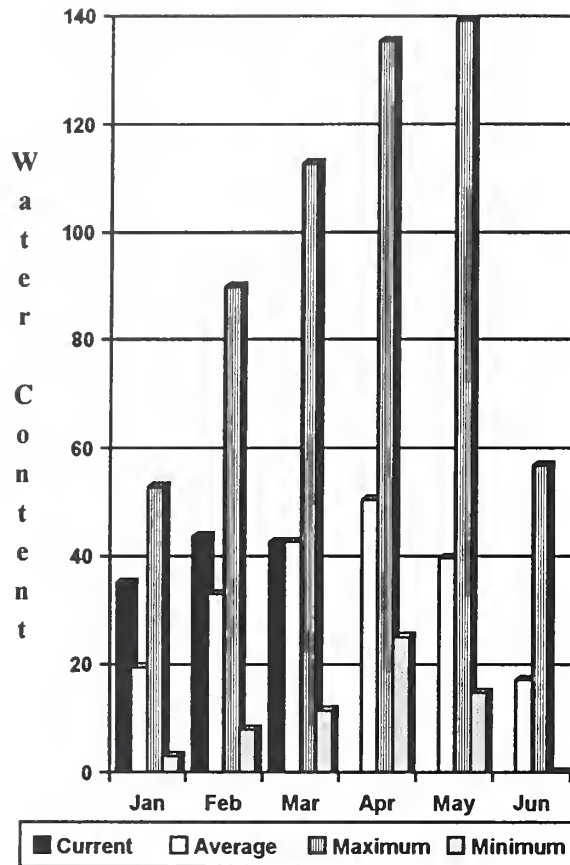
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Touchet #2 SNOTEL Elevation 5530 ft.

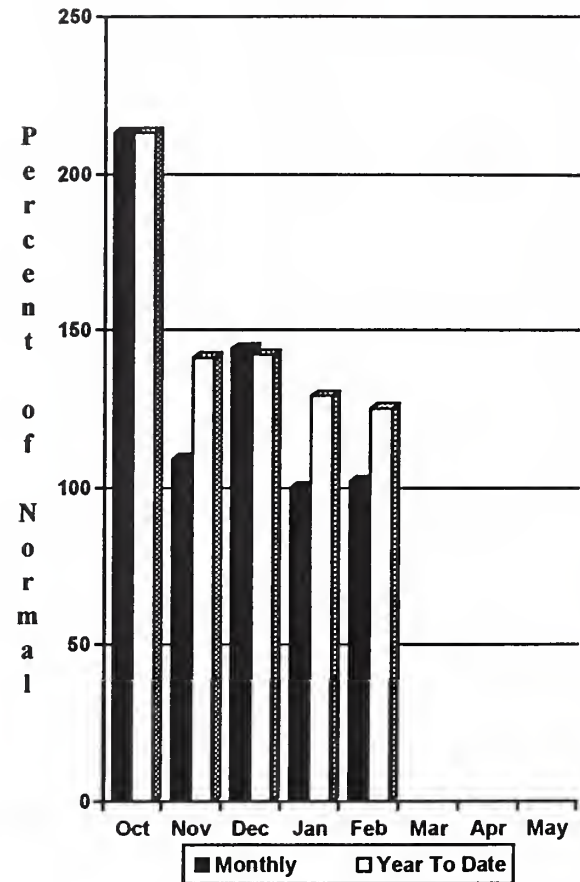


Cowlitz - Lewis River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

The forecast for summer runoff in the Lewis River is 106% of normal. The Cowlitz River is forecast for 97% of normal runoff. February streamflow on the Cowlitz River was 172% of average, and 108% on the Lewis River. February precipitation was 102% of normal, bringing the precipitation down slightly to 125% of average for the water year. March 1 snowcover for the Cowlitz River was 102%. The Lewis River continued to drop, from 126% last month to 99% of average on March 1. The Paradise Park SNOTEL recorded the most water content for the basin with 61.7 inches of water. Normal March 1 water content is 47.9 inches. Temperatures were 4 degrees above normal for February.

For more information contact your local Natural Resources Conservation Service office.

COWLITZ - LEWIS RIVER BASINS

Streamflow Forecasts - March 1, 1995

		<<----- Drier ----- Future Conditions ----- Wetter ----->>								
Forecast Point	Forecast Period	90% (1000AF)		70% (1000AF)		Chance Of Exceeding * 50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF) 10% (1000AF)		30-Yr Avg. (1000AF)
LEWIS RIVER at Ariel (2)	APR-SEP	845	1130	1275	106	1430	1730	1204		
	APR-JUL	795	985	1115	106	1250	1440	1051		
	APR-JUN	705	875	990	106	1110	1280	933		
COWLITZ R. b1 Mayfield Dam (2)	APR-SEP	965	1630	1920	97	2210	2880	1970		
	APR-JUL	1070	1440	1690	98	1940	2310	1731		
	APR-JUN	920	1240	1450	98	1660	1980	1477		
COWLITZ R. at Castle Rock (2)	APR-SEP	1280	2250	2630	99	3010	3970	2667		
	APR-JUL	1480	1960	2290	98	2620	3100	2325		
	APR-JUN	1280	1690	1975	99	2260	2670	1995		
KLICKITAT near Glenwood	APR-JUN	97	109	118	107	126	138	110		
	APR-SEP	122	139	151	108	163	180	140		

COWLITZ - LEWIS RIVER BASINS Reservoir Storage (1000 AF) - End of February					COWLITZ - LEWIS RIVER BASINS Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Cowlitz River	7	116	102
					Lewis River	4	105	99

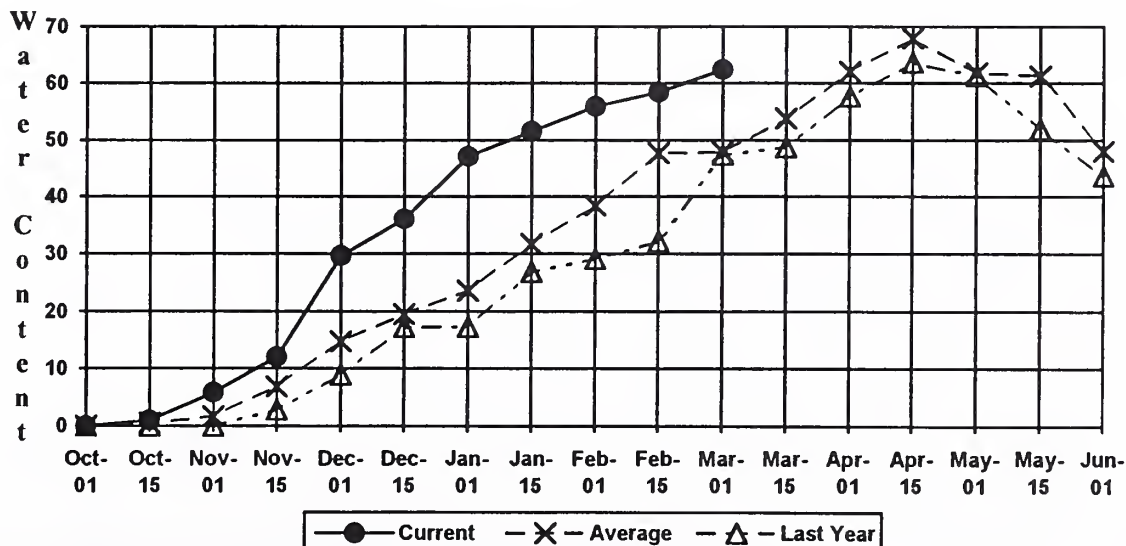
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

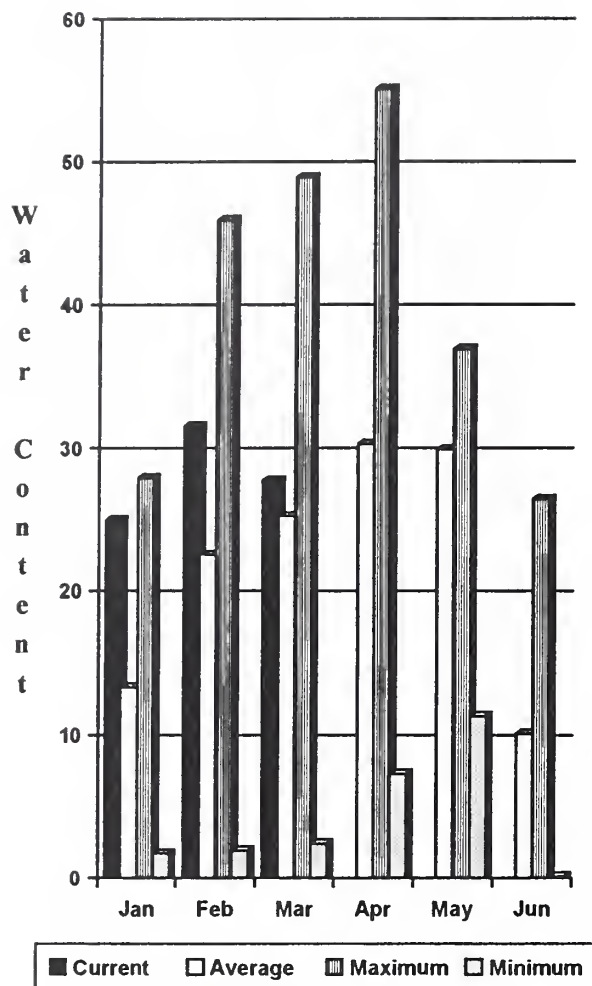
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Paradise SNOTEL Elevation 5120 ft.

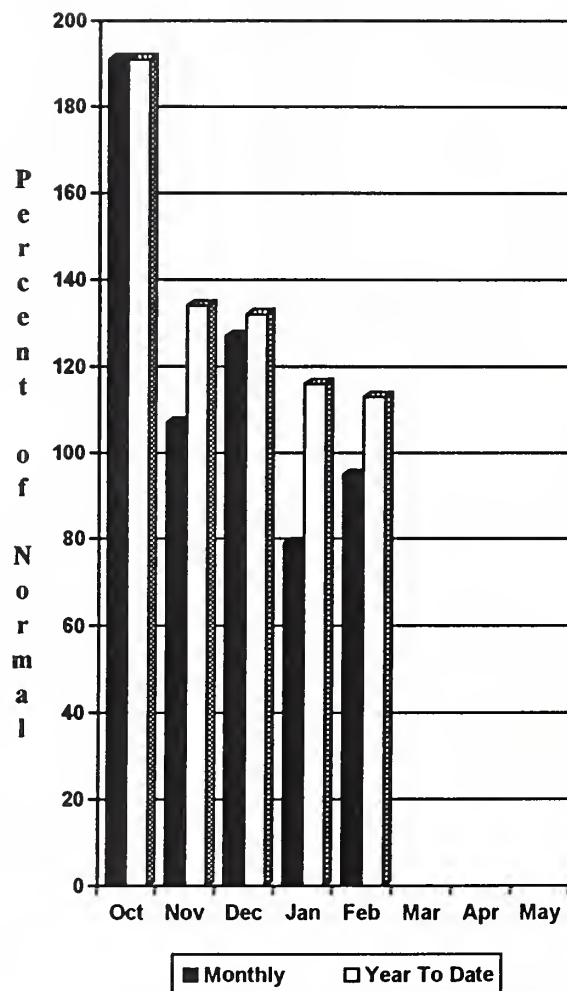


White - Green - Cedar River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Summer runoff is forecast to be 78% of normal for the Green River, 86% for the Cedar River near Cedar Falls, for the Rex River 84%, the South Fork of the Tolt River at 87%, and for the Cedar River at Cedar Falls, 85%. March 1 snowpack was 119% of normal in the White River Basin and 85% in the Green River Basin and only 56% of average at two snow courses in the Cedar River Basin. Water content on March 1 at the Morse Lake SNOTEL, at an elevation of 5400 feet, was 59.3 inches. This site has a March 1 average of 38.5 inches. February precipitation was 95% of normal, bringing the water year-to-date to 113% of average. National Weather Service reported temperatures at Stampede Pass to be 4.8 degrees above average for February which would explain the drastic drop in mid-elevation snowpack.

For more information contact your local Natural Resources Conservation Service office.

WHITE - GREEN - CEDAR RIVER BASINS Streamflow Forecasts - March 1, 1995

		<<----- Drier ----- Future Conditions ----- Wetter ----->>						
Forecast Point	Forecast Period	-----		Chance Of Exceeding *		-----		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
GREEN RIVER below Howard Hanson Dam	APR-JUL	167	189	203	79	215	240	257
	APR-SEP	183	205	222	78	240	260	285
	APR-JUN	149	171	185	79	200	220	234
CEDAR RIVER near Cedar Falls	APR-JUL	52	60	66	86	72	80	77
	APR-SEP	59	67	73	86	79	87	85
	APR-JUN	47	54	59	87	64	71	68
REX RIVER near Cedar Falls	APR-JUL	16.0	20	23	84	25	29	27
	APR-SEP	19.0	23	25	84	28	32	30
	APR-JUN	16.0	19.0	21	84	23	26	25
CEDAR RIVER at Cedar Falls	APR-JUL	48	61	70	85	79	92	82
	APR-SEP	49	62	71	85	79	92	83
	APR-JUN	47	60	69	86	78	91	80
SOUTH FORK TOLT near Index	APR-JUL	10.6	12.2	13.2	87	14.2	15.8	15.2
	APR-SEP	12.2	14.2	15.5	87	16.8	18.8	17.8
	APR-JUN	9.2	10.6	11.5	88	12.4	13.8	13.1

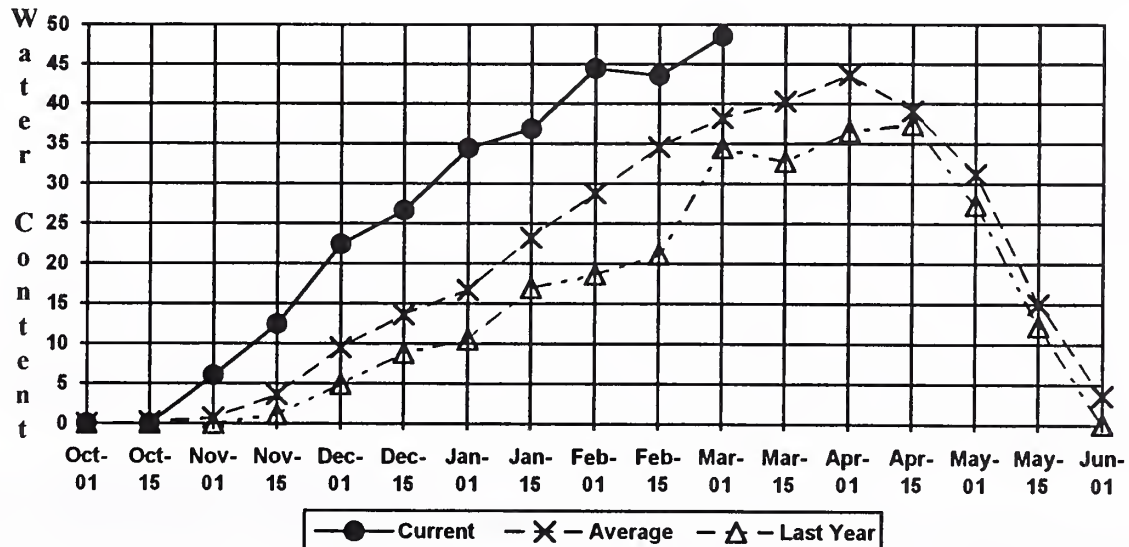
WHITE - GREEN RIVER BASINS Reservoir Storage (1000 AF) - End of February					WHITE - GREEN RIVER BASINS Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					White River	3	144	119
					Green River	7	121	85
					Cedar River	2	77	56

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

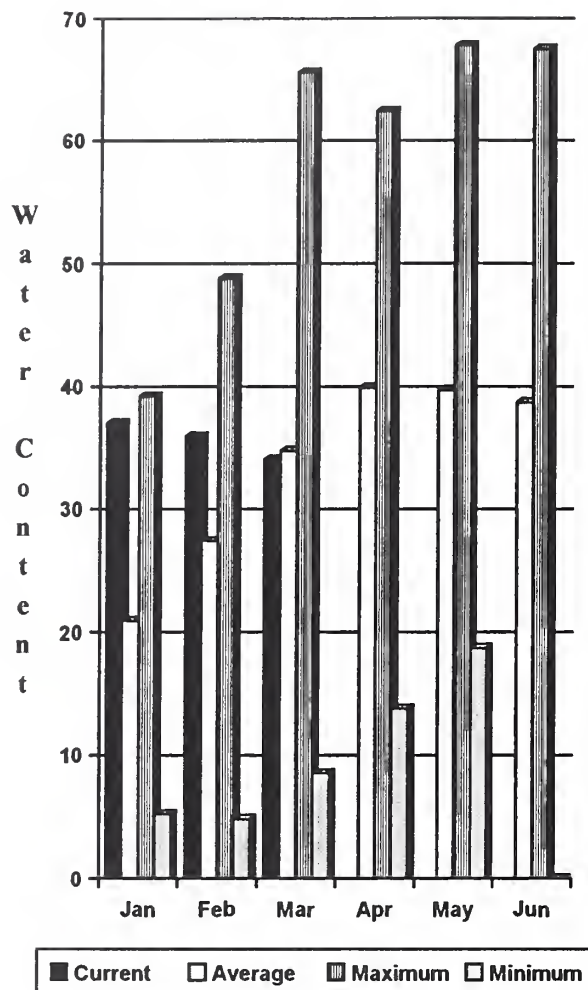
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
- (2) - The value is natural flow - actual flow may be affected by upstream water management.

Stampede Pass SNOTEL Elevation 3860 ft.

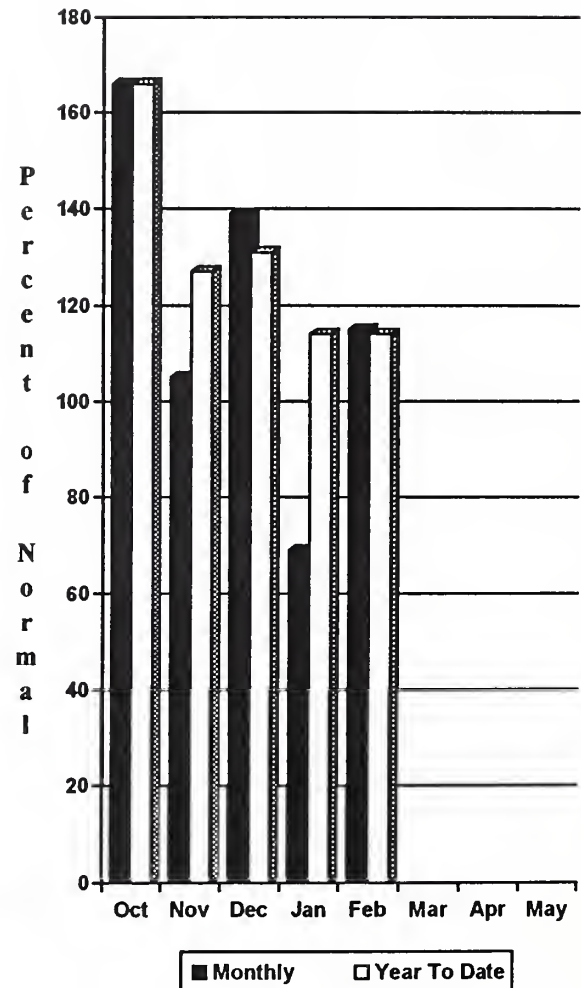


North Puget Sound River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

Forecast for the Skagit River streamflow is for 111% of normal for the spring and summer period. February streamflow in the Skagit River was 190% of average. Other forecast points include Baker River at 98% and Thunder Creek at 98%. Basin wide precipitation for February was 115% of average. However, water year to date still remains at 114% of normal. March 1 snow cover in the Skagit River was 111%, the Baker River was 104% and the Snohomish River dropped to 77% of average. Rainy Pass SNOTEL, at 4780 feet, had 48.6 inches of water content. Normal March 1 water content is 29 inches. March 1 reservoir storage showed Ross Lake at 264% normal and 58% of capacity. February temperatures were 3.5 degrees above normal.

For more information contact your local Natural Resources Conservation Service office.

NORTH PUGET SOUND RIVER BASINS

Streamflow Forecasts - March 1, 1995

		<<----- Drier ----- Future Conditions ----- Wetter ----->>							
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
THUNDER CREEK near Newhalem	APR-JUL	199	215	223	97	235	250	230	
	APR-SEP	295	310	322	98	330	350	328	
	APR-JUN	121	138	150	101	161	178	149	
SKAGIT RIVER at Newhalem (2)	APR-SEP	1960	2240	2430	111	2620	2900	2185	
	APR-JUL	1660	1890	2050	112	2210	2440	1830	
	APR-JUN	1280	1460	1580	112	1700	1880	1410	
BAKER RIVER near Concrete	APR-JUL	710	785	836	100	885	960	836	
	APR-SEP	895	980	1040	98	1100	1190	1064	
	APR-JUN	515	570	611	100	650	705	611	

NORTH PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of February					NORTH PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ROSS	1404.1	811.9	774.7	307.6	Snohomish River	9	108	77
DIABLO RESERVOIR	90.6	85.7	86.4	---	Skagit River	13	148	111
GORGE RESERVOIR	9.8	7.6	8.0	---	Baker River	9	123	104

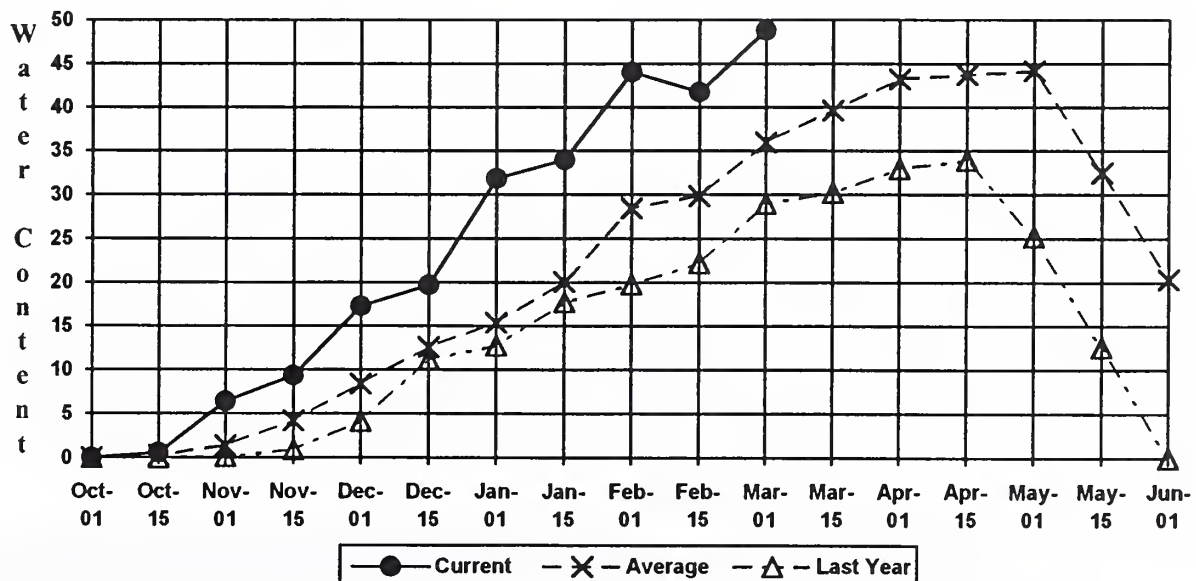
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

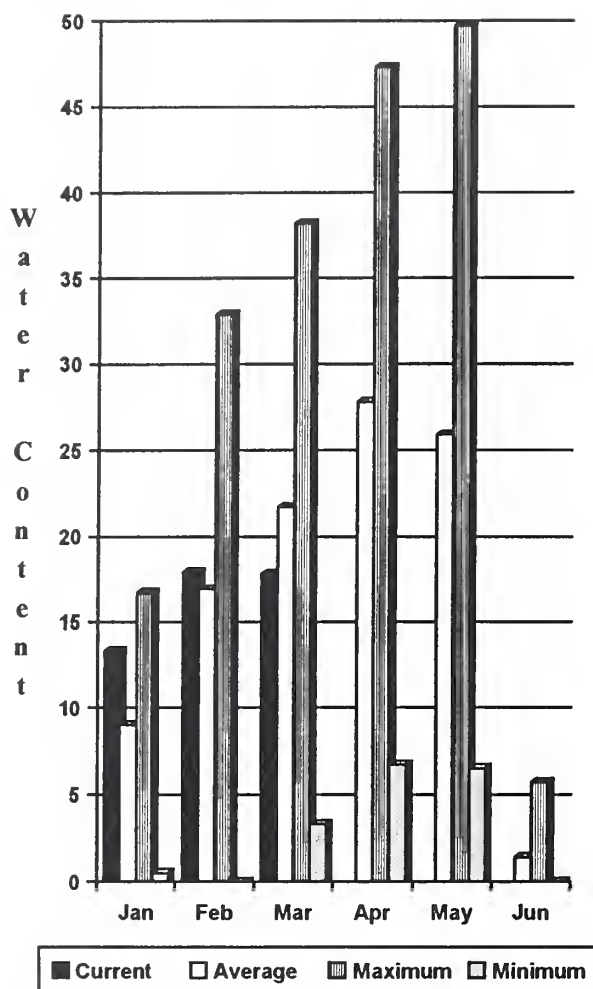
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Rainy Pass SNOTEL Elevation 4780 ft.

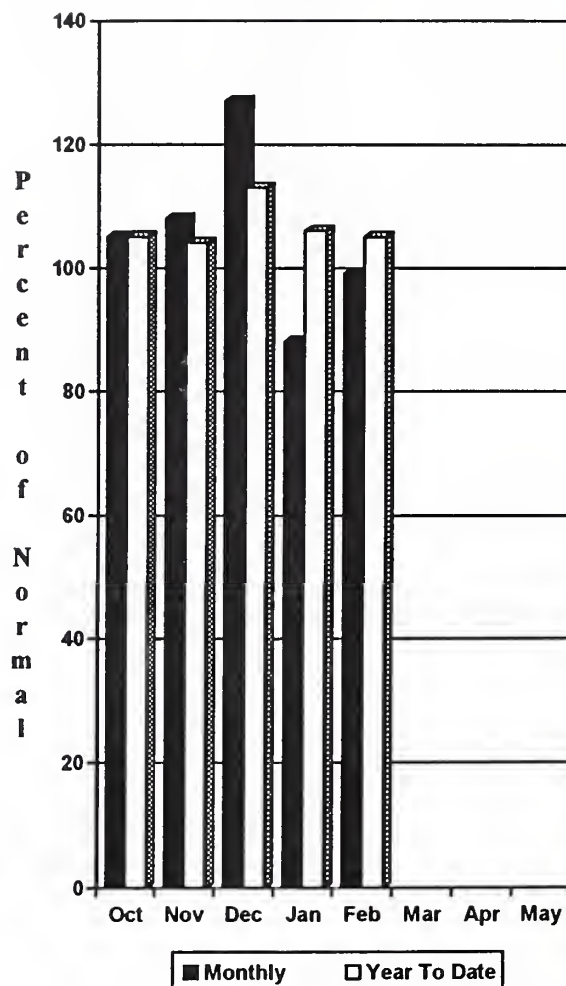


Olympic Peninsula River Basins

Mountain Snowpack* (inches)



Precipitation* (% of normal)



*Based on selected stations

March forecasts of runoff for streamflow in the basin are for 90% of average for the Dungeness River and 88% of normal for the Elwha River. February precipitation was 99% of average. Precipitation has accumulated at 105% of normal for the water year. February precipitation at Quillayute was 10.96 inches, which is slightly below normal at 91% of average. Average March 1 snow cover in the Olympic Basin varied as follows; Elwa River, 60%, Morse Creek, 97%, Dungeness River, 65%, and the Quilcene River, 107%. The Mount Crag SNOTEL near Quilcene had 28.3 inches of snow water equivalent on March 1. Normal for this site is 26.5 inches. Temperatures at Quillayute were 3 degrees above normal for February.

For more information contact your local Natural Resources Conservation Service office.

OLYMPIC PENINSULA RIVER BASINS

Streamflow Forecasts - March 1, 1995

		<<----- Drier ----- Future Conditions ----- Wetter ----->>							
Forecast Point	Forecast Period	90% 70%		Chance Of Exceeding *		30% 10%		30-Yr Avg.	
		(1000AF)	(1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	(1000AF)	(1000AF)		
DUNGENESS RIVER nr Sequim	APR-SEP	116	133	144	90	156	172	160	
	APR-JUL	95	109	118	90	128	141	131	
	APR-JUN	71	81	88	90	95	105	98	
ELWHA RIVER nr Port Angeles	APR-SEP	345	405	443	88	485	540	502	
	APR-JUL	285	330	365	87	395	445	417	

OLYMPIC PENINSULA RIVER BASINS Reservoir Storage (1000 AF) - End of February					OLYMPIC PENINSULA RIVER BASINS Watershed Snowpack Analysis - March 1, 1995			
Reservoir	Usable	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
	Capacity	This Year	Last Year	Avg			Last Yr	Average
					Elwha River	1	95	60
					Morse Creek	1	121	97
					Dungeness River	1	96	65
					Quilcene River	1	114	107
					Wynoochee River	0	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

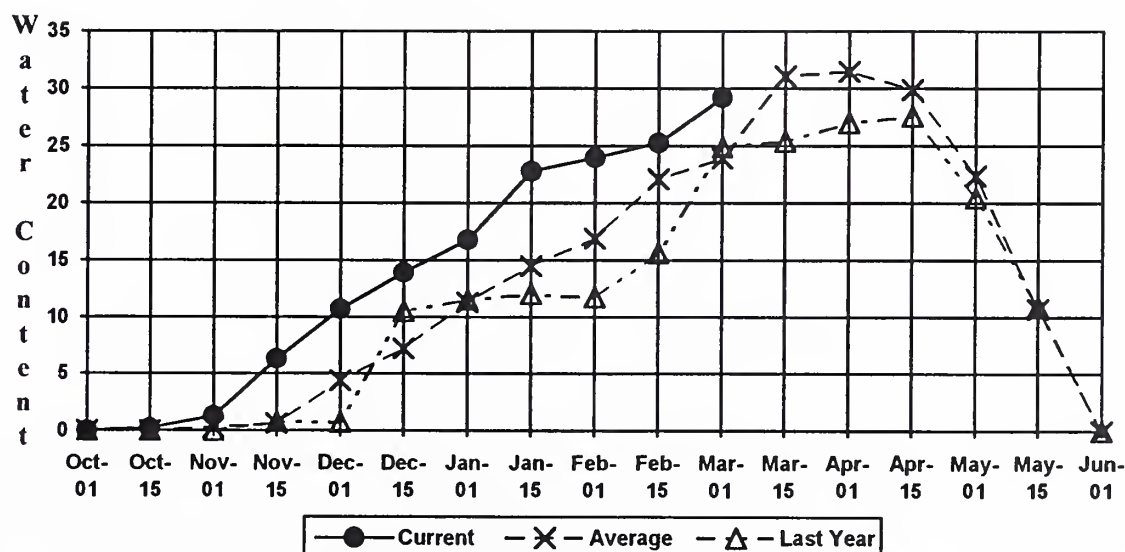
The average is computed for the 1961-1990 base period.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

Mount Crag SNOTEL

Elevation 4050 ft.



In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Natural Resources Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Natural Resources Conservation Service, West National Technical Center, 101 SW Main Street, Suite 1700, Portland, OR 97204-3225.

Issued by

Paul W. Johnson
Chief
Natural Resources Conservation Service
U.S. Department of Agriculture

Released by

Lynn A. Brown
State Conservationist
Natural Resources Conservation Service
Spokane, Washington

The Following Organizations Cooperate With the Natural Resources Conservation Service in Snow Survey Work*:

Canada

Ministry of the Environment
Investigations Branch, Victoria, British Columbia

State

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal

Department of the Army
Corps of Engineers
U.S. Department of Agriculture
Forest Service
U.S. Department of Commerce
NOAA, National Weather Service
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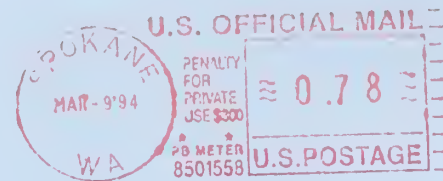
Private

Okanogan Irrigation District
Wenatchee Heights Irrigation District
Newman Lake Homeowners Association

*Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.



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